# Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A composition of vitroceramic type comprising, in mol%:

Ge	5-40
Ga	< 1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

in which:

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100.

- 2. (Original) The composition as claimed in claim 1, comprising gallium in a content of less than or equal to 0.5 mol%.
  - 3. (Original) The composition as claimed in claim 1, being devoid of gallium.
- 4. (Original) The composition as claimed in claim 1, wherein the content of germanium varies from 10 to 35 mol%.
- 5. (Original) The composition as claimed in claim 1, wherein the content of sulfur and/or selenium varies from 45 to 75 mol%.

- 6. (Original) The composition as claimed in claim 1, wherein the content of antimony and/or arsenic varies from 4 to 25 mol%.
- 7. (Currently Amended) The composition as claimed in claim 1, eharacterized in that wherein the content of compound MX varies from 2 to 15 mol%.
- 8. (Original) The composition as claimed in claim 1, wherein the content of rare earth metal varies from 0 to 3 mol%.
- 9. (Original) The composition as claimed in claim 1, wherein the content of adjuvant varies from 0 to 10 mol%.
- 10. (Original) The composition as claimed in claim 1, wherein Ln represents at least one rare earth metal chosen from Dy, Er, Nd, Pr, Yb, Tm, Ho and their mixtures.
- 11. (Original) The composition as claimed in claim 1, wherein the adjuvant is chosen from Ca, Ba, In, Te, Pb, Cu, Ag, Cd, their salts, and their derivatives, and their mixtures.
- 12. (Original) The composition as claimed in claim 1, being a quaternary mixture of germanium in a content varying from 15 to 30 mol%, of antimony in a content varying from 4 to 20 mol%, of selenium in a content varying from 50 to 70 mol% and of cesium halide, in a content varying from 3 to 15 mol%.
- 13. (Original) The composition as claimed in claim 1, being a quaternary mixture of germanium in a content varying from 15 to 20 mol%, of antimony in a content varying from 10 to 15 mol%, of sulfur in a content varying from 45 to 65 mol% and of cesium halide, in a content varying from 2 to 15 mol%.
- 14. (Original) The composition as claimed in claim 1, being a five-component mixture of germanium in a content extending from 10 to 25 mol%, of antimony in a content extending from 10 to 25 mol%, of selenium in a content extending from 55 to 65 mol%, of

cesium halide, in a content extending from 2 to 5 mol% and of an adjuvant chosen from PbI<sub>2</sub>, CuI, Ag<sub>2</sub>Se and CdTe in a content extending from 1 to 7 mol%.

- 15. (Original) The composition as claimed in claim 1, exhibiting a transparency in the infrared.
- 16. (Original) The composition as claimed in claim 1, comprising at least 0.1% of crystallized volume with crystals with a size of less than or equal to 1  $\mu$ m.
- 17. (Original) The composition as claimed in claim 16, wherein the crystals have a mean size of less than or equal to 500 nm.
- 18. (Original) The composition as claimed in claim 16, wherein the crystals have a mean size of greater than or equal to 1 nm.
- 19. (Original) The composition as claimed in claim 16, wherein the crystals have a size varying from 10 to 300 nm.
  - 20. (Original) A noncrystalline vitreous composition comprising, in mol%:

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Ge	5-40
Ga	< 1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

in which:

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and

- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100.

- 21. (Previously Presented) The composition as claimed in claim 20, wherein the composition is a quaternary mixture of germanium in a content varying from 15 to 30 mol%, of antimony in a content varying from 4 to 20 mol%, of selenium in a content varying from 50 to 70 mol% and of cesium halide, in a content varying from 3 to 15 mol%.
- 22. (Previously Presented) The composition as claimed in claim 20, wherein the composition is a five-component mixture of germanium in a content extending from 10 to 25 mol%, of antimony in a content extending from 10 to 25 mol%, of selenium in a content extending from 55 to 65 mol%, of cesium halide, in a content extending from 2 to 5 mol% and of an adjuvant chosen from PbI<sub>2</sub> .CuI, AG<sub>2</sub>Se and CdTe in a content extending from 1 to 7 mol%.
- 23. (Previously Presented) A process for the preparation of a composition of vitroceramic type comprising the heat treatment of a vitreous composition as claimed in claim 20 at a temperature and for a period of time sufficient to produce crystals with a size of less than 1 µm.
  - 24. (Canceled)
- 25. (Previously Presented) An infrared system operating in a wavelength range extending from 0.7 to 14  $\mu$ m and comprising an optical component, wherein the optical component has a composition of vitroceramic type as defined in claim 1.
  - 26. (New) A composition of vitroceramic type comprising, in mol%:

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Ge	5-40
Ga	<1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition is a quaternary mixture of germanium in a content varying from 15 to 30 mol%, of antimony in a content varying from 4 to 20 mol%, of selenium in a content varying from 50 to 70 mol% and of cesium halide, in a content varying from 3 to 15 mol%.

27. (New) A composition of vitroceramic type comprising, in mol%:

Ge	5-40
Ga	<1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition is a quaternary mixture of germanium in a content varying from 15 to 20 mol%, of antimony in a content varying from 10 to 15 mol%, of sulfur in a content varying from 45 to 65 mol% and of cesium halide, in a content varying from 2 to 15 mol%.

28. (New) A composition of vitroceramic type comprising, in mol%:

Ge	5-40
Ga	<1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition is a five-component mixture of germanium in a content extending from 10 to 25 mol%, of antimony in a content extending from 10 to 25 mol%, of selenium in a content extending from 55 to 65 mol%, of cesium halide, in a content extending from 2 to 5 mol% and of an adjuvant chosen from PbI<sub>2</sub>, Cul, Ag<sub>2</sub>Se and CdTe in a content extending from 1 to 7 mol%.

29. (New) A composition of vitroceramic type comprising, in mol%:

Ge	5-40
Ga	<1
S+Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition comprises at least 0.1% of crystallized volume with crystals with a size of less than or equal to 1  $\mu m$ .

30. (New) A noncrystalline vitreous composition comprising, in mol%:

Ge	5-40
Ga	<1
S + Se	40-85
Sb + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition is a quaternary mixture of germanium in a content varying from 15 to 30 mol%, of antimony in a content varying from 4 to 20 mol%, of selenium in a content varying from 50 to 70 mol% and of cesium halide, in a content varying from 3 to 15 mol%.

31. (New) A noncrystalline vitreous composition comprising, in mol%:

Ge	5-40
Ga	<1
S + Se	40-85
Sb. + As	4-40
MX	2-25
Ln	0-6
Adjuvant	0-30

- M represents at least one alkali metal chosen from Rb, Cs, Na, K and Zn,
- X represents at least one chlorine, bromine or iodine atom,
- Ln represents at least one rare earth metal, and
- Adjuvant represents at least one additive composed of at least one metal and/or at least one metal salt,

with the sum of the combination of the molar percentages of the components present in said composition being equal to 100,

wherein the composition is a five-component mixture of germanium in a content extending from 10 to 25 mol%, of antimony in a content extending from 10 to 25 mol%, of selenium in a content extending from 55 to 65 mol%, of cesium halide, in a content extending from 2 to 5 mol% and of an adjuvant chosen from Pbl<sub>2</sub>. Cul, Ag<sub>2</sub>Se and CdTe in a content extending from 1 to 7 mol%.